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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|--------------------------|----------------------|-------------------------|------------------|
| 09/607,772 | 06/30/2000 | Richard Gu | TI-29215 | 2609 |
| 23494 | 7590 03/03/2004 | | EXAMINER | |
| TEXAS INSTRUMENTS INCORPORATED | | | PERILLA, JASON M | |
| P O BOX 655 DALLAS, TX | 474, M/S 3999 K 75265 | | ART UNIT PAPER NUMBER | |
| , | | | 2634 | C _l |
| | | | DATE MAILED: 03/03/2004 | -1 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | _ | | pra |
|---|---|--|-----------------------|
| | Application No | Applicant(s) | |
| | 09/607,772 | GU, RICHARD | |
| Office Action Summary | Examiner | Art Unit | |
| | Jason M Perilla | 2634 | |
| The MAILING DATE of this communicatio | n appears on the cover sheet w | ith the correspondence ac | dress |
| Period for Reply | | 10NT11(0) 5D014 | |
| A SHORTENED STATUTORY PERIOD FOR R THE MAILING DATE OF THIS COMMUNICATI - Extensions of time may be available under the provisions of 37 C after SIX (6) MONTHS from the mailing date of this communicati - If the period for reply specified above is less than thirty (30) days - If NO period for reply is specified above, the maximum statutory - Failure to reply within the set or extended period for reply will, by Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b). | ON. FR 1.136(a). In no event, however, may a on. , a reply within the statutory minimum of thin beriod will apply and will expire SIX (6) MOI statute, cause the application to become Ai | reply be timely filed rty (30) days will be considered time NTHS from the mailing date of this of BANDONED (35 U.S.C. § 133). | ly. communication. |
| Status | | | |
| 1) Responsive to communication(s) filed on | <u>29 December 2003</u> . | | |
| 2a)⊠ This action is FINAL . 2b)□ | This action is non-final. | | |
| 3) Since this application is in condition for all | lowance except for formal mat | ters, prosecution as to th | e merits is |
| closed in accordance with the practice un | der <i>Ex par</i> te Quayle, 1935 C.[| D. 11, 453 O.G. 213. | |
| Disposition of Claims | | | |
| 4)⊠ Claim(s) 2 and 3 is/are pending in the ap | olication. | | |
| 4a) Of the above claim(s) is/are with | | • | |
| 5) Claim(s) is/are allowed. | | | |
| 6)⊠ Claim(s) 2 and 3 is/are rejected. | | | |
| 7) Claim(s) is/are objected to. | | | |
| 8) Claim(s) are subject to restriction a | and/or election requirement. | • | |
| Application Papers | | | |
| 9)⊠ The specification is objected to by the Exa | aminer. | | |
| 10) The drawing(s) filed on 29 December 200 | | ☑ objected to by the Exar | miner. |
| Applicant may not request that any objection t | | | |
| Replacement drawing sheet(s) including the c | orrection is required if the drawing | g(s) is objected to. See 37 C | FR 1.121(d). |
| 11)☐ The oath or declaration is objected to by t | he Examiner. Note the attache | ed Office Action or form P | TO-152. |
| Priority under 35 U.S.C. § 119 | | - | |
| 12) Acknowledgment is made of a claim for fo | reign priority under 35 U.S.C. | § 119(a)-(d) or (f). | |
| a) ☐ All b) ☐ Some * c) ☐ None of: | | | |
| 1. Certified copies of the priority docu | ments have been received. | | |
| 2. Certified copies of the priority docu | ments have been received in A | Application No | |
| Copies of the certified copies of the | e priority documents have beer | n received in this Nationa | l Stage |
| application from the International B | | | |
| * See the attached detailed Office action for | a list of the certified copies not | t received. | |
| . Attachment(s) | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) | 4) Interview | Summary (PTO-413) | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-94 | (8) Paper No | (s)/Mail Date | CO 450) |
| Information Disclosure Statement(s) (PTO-1449 or PTO/S Paper No(s)/Mail Date | SB/08) 5) Notice of 6) Other: | Informal Patent Application (PT | O-152) |

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DETAILED ACTION

1. Claims 2-3 are pending in the instant application.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, *the following claimed features must be clearly shown in one* of or *among the drawings*. Otherwise, the feature(s) should be canceled from the claim(s). No new matter should be entered.

Figure 3 is the representative block diagram of the preferred embodiment according to claim 2. Figures 4-19 illustrate various blocks within the block diagram of figure 3. However, none of the figures feature the following features of claim 2.

- a. The input to the phase selection circuit of two said outputs of the voltage controlled oscillator in line 21 of claim 2 is not shown in the figures.
- b. The data recovery error signals of (line 23) of claim 2 are not clearly shown in the figures.
- c. The two clock outputs of the phase selection circuit (line 25) of claim 2 received by the phase interpreter are not clearly shown in the figures.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because of the following informalities. A proposed drawing correction or corrected drawings are required in reply to the Office action to

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avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Regarding figure 3, where more than one connection is made between blocks in a block diagram, it is suggested by the examiner that the drawing illustrates multiple connections between blocks.

Claim Objections

4. Claim 2 is objected to because of the following informalities:

Claim 2 recites the limitation "said clock outputs of said voltage controlled oscillator" in line 21. There is insufficient antecedent basis for this limitation in the claim.

The phase interpreter of line 24 is shown in figure 3 as a phase interpolator. The claim and the drawing(s) should be corrected to use the same description.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 6. Claims 2 and 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, it provides a limitation including "said data recovery error signals" in lines 23 and 28. There is insufficient antecedent basis for this limitation in the claim, and it renders the claim indefinite. The phase selection circuit produces an interpolation code that is dependent upon the said data recovery error signals.

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However, the data recovery error signals have no origin in the claim. The data recovery signals can not necessarily be understood to be generated by the data recovery block because the data recovery block performs a deserializing function, and the data recovery block is not clearly shown in the drawings as having a data recovery error signals output.

Further regarding claim 2, it provides a limitation including "said two clock outputs of said phase selection circuit" in line 25. There is insufficient antecedent basis for this limitation in the claim, and it renders the claim indefinite. The phase interpreter uses the "said two clock outputs of said phase selection circuit" to generate a single interpolation output. However, the two clock outputs have no origin in the claim. The "said two clock outputs of said phase selection circuit" are not disclosed as being output from the phase selection circuit, and they are not shown in the drawings. The claim discloses that the phase selection circuit generates an interpolation code, but it does not disclose generating two clock outputs. Further, the drawings do not support the generation of two clock outputs from the phase selection circuit. Therefore, the claim is indefinite.

Regarding claim 3, it is rejected as being dependent upon the rejected parent claim 2.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (703) 305-0374. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M Perilla February 17, 2004

In on Dels

jmp

Stephen Chin Supervisory Patent Examine

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